What is claimed is:

1. A method of inhibiting hYAK3 in a mammal; comprising, administering to the mammal a therapeutically effective amount of a compound of the formula I, or a salt, solvate, or a physiologically functional derivative thereof

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Ι

in which

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R is C₃₋₆ cycloalkyl or naphtyl; or

R is

radical of the formula

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in which R1 is hydrogen, halogen, -C1-6alkyl, -SC1-6alkyl, -OC1-6alkyl, -NO2, -S(=O)-C1-6alkyl, -OH, -CF3, -CN, -CO2H, -OCF3, or -CO2C1-6alkyl; and R2 and R3 are independently hydrogen, halogen, -C1-6 alkyl, -SC1-6alkyl, -OC1-6alkyl, -NO2, -S(=O)-C1-6alkyl, -OH, -CF3, -CN, -CO2H, -CO2C1-6alkyl, -CONH2, -NH2, -OCH2(C=O)OH, -OCH2CH2OCH3, -SO2NH2, -CH2SO2CH3, -NH(C=NH)CH3; or R2 and R3 can independently be a

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R is

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in which q is one or two; R4 is hydrogen, halogen, or -SO₂NH₂; or

R is

-(CH₂)_n-NR^kR^l in which n is 2 or 3, and R^k and R^l are independently -C₁₋₆alkyl; or -NR^kR^l together form

10

$$-N$$
 ; or

15

Ris

$$-N$$
, N
S
 $H_3C CH_3$
 CH_3

$$\stackrel{\mathsf{H}}{\sim}$$
 $\stackrel{\mathsf{H}}{\sim}$ $\stackrel{\mathsf{H}}{\sim}$

; and

20

25 Q is

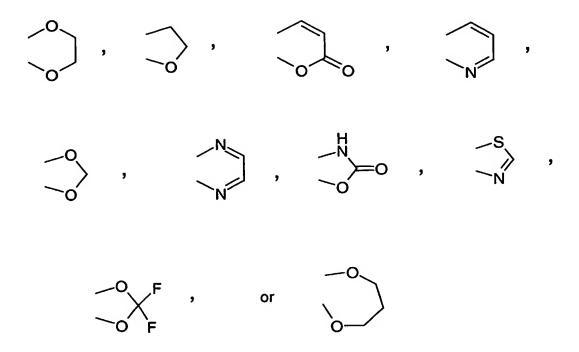
in which R5 is hydrogen, phenyl optionally substituted with up to three C_{1-6} alkyl or halogen, or C_{1-6} alkyl; or

Q is

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in which Y is CH; and A and B together are a part of



provided that ortho position to Y is N or O; or

Q is

5

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in which Y is N or CH; J is hydrogen, NH₂, OH or -OC₁₋₆alkyl; and L is hydrogen, NH₂, halogen, -NO₂, or -OC₁₋₆alkyl.

- 15 2. A method of treating or preventing diseases of the erythroid and hematopoietic systems, caused by the hYAK3 imbalance or inappropriate activity; comprising, administering to a mammal a therapeutically effective amount of a compound of claim 1, or a salt, solvate, or a physiologically functional derivative thereof and one or more of pharmaceutically acceptable carriers, diluents and excipients.
 - 3. A method of claim 2 in which diseases of the erythroid and hematopoietic systems are selected from the group consisting of: anemia, aplastic anemia, myelodysplastic syndrome, myelosuppression, and cytopenia.
 - 4. A method of treating or preventing diseases selected from the group

consisting of: anemia, aplastic anemia, myelodysplastic syndrome, myelosuppression, and cytopenia; comprising, administering to a mammal a therapeutically effective amount of a compound of claim 1, or a salt, solvate, or a physiologically functional derivative thereof and one or more of pharmaceutically acceptable carriers, diluents and excipients.

5. A method of claims 1, 2, 3, or 4 in which a compound of formula I is selected from the group consisting of:

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- 2-(2-Chloro-5-fluoro-phenylimino)-5-(2,3-dihydro-benzo[1-6]dioxin-6-ylmethylene)-thiazolidin-4-one;
- 2-(2-Chloro-phenylimino)-5-(2-oxo-2H-chromen-6-ylmethylene)-thiazolidin-4-one;
- 15 2-(2-Chloro-phenylimino)-5-(2-oxo-2H-chromen-6-ylmethylene)-thiazolidin-4-one;
 - 2-(2-Chloro-phenylimino)-5-(2-oxo-2H-chromen-6-ylmethylene)-thiazolidin-4-one;
- 5-(2,3-Dihydro-benzofuran-5-ylmethylene)-2-(2,4,6-trimethyl-phenylimino)-thiazolidin-4-one;
 - 2-Cyclohexylimino-5-(2,3-dihydro-benzo[1-6]dioxin-6-ylmethylene)-thiazolidin-4-one;
- 25 2-Cyclohexylimino-5-(2,3-dihydro-benzofuran-5-ylmethylene)-thiazolidin-4-one;
 - 5-Benzo[1,3]dioxol-5-ylmethylene-2-(chloro-phenylimino)-thiazolidin-4-one;
 - 5-(2,3-Dihydro-benzofuran-5-ylmethylene)-2-o-tolylimino-thiazolidin-4-one;
 - 5-(2,3-Dihydro-benzo[1-6]dioxin-6-ylmethylene)-2-o-tolylimino-thiazolidin-4-one;
 - 5-[2-(2-Chloro-phenylimino)-4-oxo-thiazolidin-5-ylidenemethyl]-3H-benzooxazol-2-one;
- 35 2-(2-Trifluoromethyl-phenylimino)-5-(2,3-dihydro-benzofuran-5-ylmethylene)-thiazolidin-4-one;
 - 2-(2-Bromo-phenylimino)-5-(2,3-dihydro-benzofuran-5-ylmethylene)-thiazolidin-4-one;
- 40 2-(2,6-Dichloro-phenylimino)-5-(2,3-dihydro-benzofuran-5-ylmethylene)-thiazolidin-4-one;
 - 5-(2,3-Dihydro-benzofuran-5-ylmethylene)-2-(2-methylsulfanyl-phenylimino)-thiazolidin-4-one;

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- $5\hbox{-}(2,3\hbox{-}Dihydro-benzo furan-5-ylmethylene)-2-(2\hbox{-}fluoro-phenylimino)-thiazolidin-4-one;}\\$
- 2-(2-Methylsulfanyl-phenylimino)-5-(quinolin-6-ylmethylene)-thiazolidin-4-one;

- 2-(2-Bromo-phenylimino)-5-(quinolin-6-ylmethylene)-thiazolidin-4-one;
- 2-(2,3-Dimethyl-phenylimino)-5-(quinolin-6-ylmethylene)-thiazolidin-4-one;
- 2-(Naphthalen-1-ylimino)-5-(quinolin-6-ylmethylene)-thiazolidin-4-one;

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- 5-(Quinolin-6-ylmethylene)-2-(2-trifluoromethyl-phenylimino)-thiazolidin-4-one;
- 2-(2-Chloro-5-trifluoromethyl-phenylimino)-5-(quinolin-6-ylmethylene)-thiazolidin-4-one;
 - 2-(2,6-Dichloro-phenylimino)-5-8quinolin-6-ylmethylene)-thiazolidin-4-one;
- 2-(2-Bromo-phenylimino)-5-(2,3-dihydro-benzo[1-6]dioxin-6-ylmethylene) -thiazolidin-4-one;
 - 5-(Benzo[1,3]dioxol-5-ylmethylene)-2-(2-bromo-phenylimino)-thiazolidin-4-one;
- 20 2-(2-Chloro-phenylimino)-5-(quinoxalin-6-ylmethylene)-thiazolidin-4-one;
 - 2-(2,6-Dichloro-phenylimino)-5-(2,3-dihydro-benzo[1-6]dioxin-6-ylmethylene)-thiazolidin-4-one;
- 5-(2,3-Dihydro-benzo[1-6]dioxin-6-ylmethylene)-2-(2-nitro-phenylimino) -thiazolidin-4-one;
 - 5-(2,3-Dihydro-benzofuran-5-ylmethylene)-2-(2-nitro-phenylimino)-thiazolidin-4-one;
- 30 2-(2-Chloro-4-fluoro-5-methyl-phenylimino)-5-(2,3-dihydro-benzofuran-5-ylmethylene)-thiazolidin-4-one;
 - 3-Chloro-4-[5-(2,3-dihydro-benzofuran-5-ylmethylene)-4-oxo-thiazolidin-2-ylideneamino]-benzoic acid methyl ester;
- 35
 2-(2-Chloro-5-fluoro-phenylimino)-5-(2,3-dihydro-benzofuran-5-ylmethylene)thiazolidin-4-one;
- 2-(2-Chloro-4-trifluoromethyl-phenylimino)-5-(2,3-dihydro-benzofuran-5-ylmethylene)-40 thiazolidin-4-one;
 - 2-(4-Bromo-2-chloro-phenylimino)-5-(2,3-dihydro-benzofuran-5-ylmethylene)-thiazolidin-4-one;
- 5-(2,3-Dihydro-benzofuran-5-ylmethylene)-2-(2-methanesulfinyl-phenylimino)-thiazolidin-4-one;
 - 3-Chloro-4-[5-(2,3-dihydro-benzofuran-5-ylmethylene)-4-oxo-thiazolidin-2-ylideneamino]-benzoic acid;
 - 5-[2-(2-Chloro-phenylimino)-4-oxo-thiazolidin-5-ylidenemethyl]-1H-pyridin-2-one;
 - 2-(2-Methylsulfanyl-phenylimino)-5-(quinolin-6-ylmethylene)-thiazolidin-4-one;

 $\hbox{2-(2-Chloro-4-fluoro-5-methyl-phenylimino)-5-(quinolin-6-ylmethylene)-thiazolidin-4-one;}$

- 5 2-(2-Chloro-5-fluoro-phenylimino)-5-(quinolin-6-ylmethylene)-thiazolidin-4-one; 2-(2-Chloro-5-fluoro-phenylimino)-5-(2,3-dihydro-benzo[1-6]dioxin-6-ylmethylene)-thiazolidin-4-one;
- 2-(2-Chloro-4-trifluoromethyl-phenylimino)-5-quinolin-6-ylmethylene-thiazolidin-4-one;
 - 5-(Benzothiazol-6-ylmethylene)-2-(2-chloro-phenylimino)-thiazolidin-4-one;
- 5-(Benzo[1,2,5]thiadiazol-5-ylmethylene)-2-(2-bromo-phenylimino)-thiazolidin-4-one;
 5-(Benzo[1,2,5]thiadiazol-5-ylmethylene)-2-(2-chloro-5-fluoro-phenylimino)-thiazolidin-4-one;
- 5-(Benzothiazol-6-ylmethylene)-2-(2,6-dichloro-phenylimino)-thiazolidin-4-one; 2-(2-Chloro-phenylimino)-5-(4-hydroxy-3-nitro-benzylidene)-thiazolidin-4-one;
- 2-(2-Chloro-phenylimino)-5-(4-hydroxy-3-methoxy-benzylidene)-thiazolidin-4-one; 25 2-(2-Chloro-phenylimino)-5-(4-hydroxy-2-methoxy-benzylidene)-thiazolidin-4-one;
 - 2-(2-Chloro-phenylimino)-5-(4-hydroxy-benzylidene)-thiazolidin-4-one;
- 2-(2-Chloro-phenylimino)-5-(4-methoxy-benzylidene)-thiazolidin-4-one;
 5-(3-Chloro-4-hydroxy-benzylidene)-2-(2-chloro-phenylimino)-thiazolidin-4-one;
- 2-(2-Chloro-phenylimino)-5-(3-fluoro-4-methoxy-benzylidene)-thiazolidin-4-one;
 35
 2-(2,6-Dichloro-phenylimino)-5-(3-fluoro-4-hydroxy-benzylidene)-thiazolidin-4-one;
 2-(2-Chloro-phenylimino)-5-(3-fluoro-4-hydroxy-benzylidene)-thiazolidin-4-one;
- 2-(2-Chloro-5-fluoro-phenylimino)-5-(3-fluoro-4-hydroxy-benzylidene)-thiazolidin-4-one;
 - $5\hbox{-}(3\hbox{-}Fluoro\hbox{-}4\hbox{-}hydroxy\hbox{-}benzylidene)\hbox{-}2\hbox{-}o\hbox{-}tolylimino\hbox{-}thiazolidin-}4\hbox{-}one;$
- 2-(2-Chloro-phenylimino)-5-quinolin-6-ylmethylene-thiazolidin-4-one;
 5-Quinolin-6-ylmethylene-2-(2,4,6-trimethyl-phenylimino)-thiazolidin-4-one;
 5-Quinolin-6-ylmethylene-2-o-tolylimino-thiazolidin-4-one;
- 50 2-(2-Methoxy-phenylimino)-5-quinolin-6-ylmethylene-thiazolidin-4-one; 5-(2,3-Dihydro-benzofuran-5-ylmethylene)-2-(2-dimethylamino-ethylamino)-thiazol-4-

one;

Benzoic acid N'-(4-oxo-5-quinolin-6-ylmethylene-4,5-dihydro-thiazol-2-yl)-hydrazide;

- $\hbox{2-}(2-Dimethylamino-ethylimino)-5-quino lin-6-ylmethylene-thia zolidin-4-one;$
- 5-(2,3-Dihydro-benzofuran-5-ylmethylene)-2-(piperidin-1-ylamino)-thiazol-4-one;
- 5 2-Benzylamino-5-(2,3-dihydro-benzofuran-5-ylmethylene)-thiazol-4-one;
 - 2-(4-tert-Butyl-thiazol-2-ylamino)-5-(2,3-dihydro-benzofuran-5-ylmethylene)-thiazol-4-one:
 - 4-{[5-(2,3-Dihydro-benzofuran-5-ylmethylene)-4-oxo-4,5-dihydro-thiazol-2-ylamino]-methyl}-benzenesulfonamide;

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- 5-(2,3-Dihydro-benzofuran-5-ylmethylene)-2-(3-dimethylamino-propylamino)-thiazol-4-one;
- 5-(2,3-Dihydro-benzofuran-5-ylmethylene)-2-(3-imidazol-1-yl-propylamino)-thiazol-4-one:
- Phenyl-carbamic acid N'-[5-(2,3-dihydro-benzofuran-5-ylmethylene)-4-oxo-4,5-dihydro-thiazol-2-yl]-hydrazide;
 - Benzoic acid N'-[5-(2,3-dihydro-benzofuran-5-ylmethylene)-4-oxo-4,5-dihydro-thiazol-2-yl]-hydrazide;

- 5-Benzo [1,2,5] thiadiazol-5-ylmethylene-2-(2,3,4-trifluoro-phenylamino)-thiazol-4-one;
- 5-Benzo[1,2,5]oxadiazol-5-ylmethylene-2-(2-nitro-phenylamino)-thiazol-4-one;
- 25 2-(2,6-Dichloro-phenylamino)-5-(4-[1,2,4]triazol-1-yl-benzylidene)-thiazol-4-one;
 - $\hbox{$2$-(2,6-Dichloro-phenylamino)-5-(1H-pyrrolo[2,3-b]pyridin-2-ylmethylene)-thiazol-4-one;}$
- 30 5-Benzo[1,2,5]thiadiazol-5-ylmethylene-2-(2,6-dichloro-phenylamino)-thiazol-4-one;
 - 5-[2-(2-Methoxy-6-methyl-phenylamino)-4-oxo-4H-thiazol-5-ylidenemethyl]-1H-pyridin-2-one;
- 35 5-Benzo[1,2,5]thiadiazol-5-ylmethylene-2-(2-nitro-phenylamino)-thiazol-4-one;
 - 2-(2-Bromo-6-fluoro-phenylamino)-5-quinolin-6-ylmethylene-thiazol-4-one;
- 40 2-(2-Methoxy-6-methyl-phenylamino)-5-quinolin-6-ylmethylene-thiazol-4-one;
 - 5-Quinolin-6-ylmethylene-2-(2,3,4-trifluoro-phenylamino)-thiazol-4-one;
 - $\hbox{2-}(2,6-Dichloro-phenylamino)-5-(2-oxo-2H-chromen-6-ylmethylene)-thiazol-4-one;$

2-(2-Bromo-phenylamino)-5-(5-pyridin-2-yl-thiophen-2-ylmethylene)-thiazol-4-one; 2-(2-Bromo-phenylamino)-5-(1-oxy-pyridin-4-ylmethylene)-thiazol-4-one; 5 $\hbox{$2$-(2-Bromo-phenylamino)-5-(3-p-tolyl-benzo[c] is oxazol-5-ylmethylene)-thiazol-4-one;}$ 2-(2-Bromo-phenylamino)-5-(3,4-dihydro-2H-benzo[b][1-6]dioxepin-7-ylmethylene)thiazol-4-one; 10 5-Benzo[1,2,5]oxadiazol-5-ylmethylene-2-(2-bromo-phenylamino)-thiazol-4-one; 2-(2,6-Dichloro-phenylamino)-5-(2-methoxy-pyridin-3-ylmethylene)-thiazol-4-one; 2-(2-Chloro-phenylamino)-5-(6-methoxy-pyridin-3-ylmethylene)-thiazol-4-one; 15 2-(2-Chloro-5-trifluoromethyl-phenylamino)-5-quinolin-6-ylmethylene-thiazol-4-one; 2-(2-Bromo-phenylamino)-5-(4-hydroxy-3-methoxy-benzylidene)-thiazol-4-one; 20 5-(2,3-Dihydro-benzofuran-5-ylmethylene)-2-(2-methoxy-phenylamino)-thiazol-4-one; 2-(2-Nitro-phenylamino)-5-quinolin-6-ylmethylene-thiazol-4-one; 25 2-(2-Bromo-phenylamino)-5-(3,4-diamino-benzylidene)-thiazol-4-one; 5-[2-(2-Chloro-phenylimino)-4-oxo-thiazolidin-5-ylidenemethyl]-1-methyl-1H-pyridin-2one; 2-(2-Chloro-5-nitro-phenylamino)-5-quinolin-6-ylmethylene-thiazol-4-one; 30 2-(5-Amino-2-chloro-phenylamino)-5-quinolin-6-ylmethylene-thiazol-4-one; N-[4-Chloro-3-(4-oxo-5-quinolin-6-ylmethylene-4,5-dihydro-thiazol-2-ylamino)-phenyl]-35 acetamidine hydrochloride; 4-{[4-oxo-5-(6-quinolinylmethylidene)-4,5-dihydro-1,3-thiazol-2-yl]amino}benzamide; 3-{[4-oxo-5-(6-quinolinylmethylidene)-4,5-dihydro-1,3-thiazol-2-40 yl]amino}benzenesulfonamide; 4-{[4-oxo-5-(6-quinolinylmethylidene)-4,5-dihydro-1,3-thiazol-2-yl]amino}-N-2pyridinylbenzenesulfonamide; 2-(4-[(4-methyl-1-piperazinyl)methyl]phenyl}amino)-5-(6-quinolinylmethylidene)-1,3-45 thiazol-4(5H)-one; 2-({4-[(methylsulfonyl)methyl]phenyl}amino)-5-(6-quinolinylmethylidene)-1,3-thiazol-4(5H)-one; 50

2-({3-{(methylsulfonyl)methyl}phenyl}amino)-5-(6-quinolinylmethylidene)-1,3-thiazol-

4(5H)-one;

2-{[4-(4-methyl-1-piperazinyl)phenyl]amino}-5-(6-quinolinylmethylidene)-1,3-thiazol-4(5H)-one;

- 2-{[2-(3-chlorophenyl)ethyl]amino}-5-(6-quinolinylmethylidene)-1,3-thiazol-4(5H)-one;
- 4-(2-{[4-oxo-5-(6-quinolinylmethylidene)-4,5-dihydro-1,3-thiazol-2-yl]amino}ethyl)benzenesulfonamide;
- 3-{[4-oxo-5-(6-quinolinylmethylidene)-4,5-dihydro-1,3-thiazol-2-yl]amino}benzamide;
 - 2-[(2,6-Difluoro-phenylamino)-methylene]-5-quinolin-6-ylmethylene-thiazolidin-4-one;
- 2-[(2,6-Difluoro-phenylamino)-methylene]-5-quinolin-6-ylmethylene-thiazolidin-4-one; [2,4-Dichloro-5-(4-oxo-5-quinolin-6-ylmethylene-thiazolidin-2-ylideneamino)-phenoxy]-acetic acid;
- 20 2-[2,4-Dichloro-5-(2-methoxy-ethoxy)-phenylimino]-5-quinolin-6-ylmethylene-thiazolidin-4-one;
 - 4-Chloro-3-(4-oxo-5-quinolin-6-ylmethylene-thiazolidin-2-ylideneamino)-benzoic acid; and
 - [2,4-Dichloro-5-(4-oxo-5-quinolin-6-ylmethylene-thiazolidin-2-ylideneamino)-phenoxy]-acetic acid.
 - 6. A compound of the formula II, or a salt, solvate, or a physiologically functional derivative thereof,

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in which

II

R is C₃₋₆ cycloalkyl or naphtyl; or

5 Ris

in which R1 is hydrogen, halogen, -C1-salkyl, -SC1-salkyl, -OC1-salkyl, -NO2

-S(=O)-C₁₋₆alkyl, -OH, -CF₃, -CN, -CO₂H, -OCF₃, or -CO₂C₁₋₆alkyl; and R2 and R3 are independently hydrogen, halogen, -C₁₋₆ alkyl,

-SC₁₋₆alkyl, -OC₁₋₆alkyl, -NO₂, -S(=O)-C₁₋₆alkyl, -OH, -CF₃, -CN, -CO₂H, -CO₂C₁₋₆alkyl, -CONH₂, -NH₂, -OCH₂(C=O)OH, -OCH₂CH₂OCH₃, -SO₂NH₂,

-CH₂SO₂CH₃, -NH(C=NH)CH₃; or R2 and R3 can independently be a radical of the formula

$$N-CH_3$$
 $N-CH_3$ or $N-CH_3$ $N-CH_3$ $N-CH_3$ $N-CH_3$ $N-CH_3$ $N-CH_3$ $N-CH_3$ $N-CH_3$

20

15

R is

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in which q is one or two; R4 is hydrogen, halogen, or -SO2NH2; or

R is -(CH₂)_n-NR^kR^l in which n is 2 or 3, and R^k and R^l are independently -C₁₋₆alkyl; or -NR^kR^l together form

30

R is

$$-N$$
, N CH_3 CH_3

$$-N$$
 ; and

5

Q is

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in which R5 is hydrogen, phenyl optionally substituted with up to three C1-6 alkyl or halogen, or C₁₋₆ alkyl; or

15

Q is

in which Y is CH; and A and B together are a part of

provided that ortho position to Y is N or O.

7. A compound of formula II of claim 6 in which

R is C₃₋₆ cycloalkyl or naphtyl; or

15 R is

5

10

in which R1 is hydrogen, halogen, -C₁₋₆alkyl, -SC₁₋₆alkyl, -OC₁₋₆alkyl, -NO₂,
-S(=O)-C₁₋₆alkyl, -OH, -CF₃, -CN, -CO₂H, -OCF₃, or -CO₂C₁₋₆alkyl;
and R2 and R3 are independently hydrogen, halogen, -C₁₋₆ alkyl,
-SC₁₋₆alkyl, -OC₁₋₆alkyl, -NO₂, -S(=O)-C₁₋₆alkyl, -OH, -CF₃, -CN, -CO₂H,
-CO₂C₁₋₆alkyl, -CONH₂, -NH₂, -OCH₂(C=O)OH, -OCH₂CH₂OCH₃, -SO₂NH₂,

-CH2SO2CH3, -NH(C=NH)CH3; or R2 and R3 can independently be a radical of the formula

5

R is

in which q is one or two; R4 is hydrogen, halogen, or -SO₂NH₂; or

R is $\begin{array}{ll} \hbox{-(CH_2)_n-NR^kR^l$ in which n is 2 or 3, and R^k and R^l are independently} \\ \hbox{-C_{1-6}alkyl; or -NR^kR^l$ together form} \end{array}$

15

$$-N$$
 ; or

20 R is

$$-N \qquad , \qquad N \qquad N \qquad S \qquad CH_3 \qquad$$

$$-N$$
 ; and

25

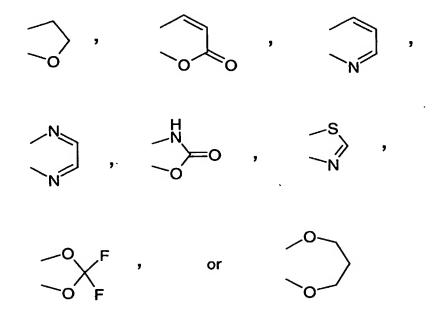
Q is



in which R5 is hydrogen, phenyl optionally substituted with up to three $C_{1\text{-}6}$ alkyl or halogen, or $C_{1\text{-}6}$ alkyl; or

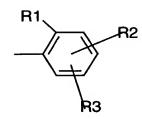
5

in which Y is CH; and A and B together are a part of



5 provided that ortho position to Y is N or O.

10 8. A compound of formula II of claim 7 in which R is



in which R1 is halogen, -C₁₋₆alkyl, -SC₁₋₆alkyl, -OC₁₋₆alkyl, -NO₂, -S(=O)-C₁₋₆alkyl, -OH, -CF₃, -CN, -CO₂H, or -CO₂C₁₋₆alkyl; and R2 and R3 are independently hydrogen, halogen, -C₁₋₆ alkyl,

-SC₁₋₆alkyl, -OC₁₋₆alkyl, -NO₂, -S(=O)-C₁₋₆alkyl, -OH, -CF₃, -CN, -CO₂H,

-CO₂C₁₋₆alkyl, -NH₂, or -NH(C=NH)CH₃;

20 and

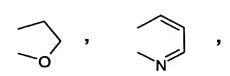
Q is 25

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5 Q is

in which Y is CH; and A and B together are a part of

10



, ,

or



PCT/US2003/037658

15

provided that ortho position to Y is N or O.

9. A compound of formula II of claim 8 in which R is

20

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in which R1 is halogen, -C₁₋₆alkyl, -SC₁₋₆alkyl, -OC₁₋₆alkyl, -NO₂, -S(=O)-C₁₋₆alkyl, -OH, -CF₃, -CN, -CO₂H, or -CO₂C₁₋₆alkyl; and R2 and R3 are independently hydrogen, halogen, -C₁₋₆ alkyl, -SC₁₋₆alkyl, -OC₁₋₆alkyl, -NO₂, -S(=O)-C₁₋₆alkyl, -OH, -CF₃, -CN, -CO₂H,

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-CO₂C₁₋₆alkyl, -NH₂, or -NH(C=NH)CH₃;

PCT/US2003/037658

and

5 Q is

10

15

Q is

in which Y is CH; and A and B together are a part of

$$\begin{pmatrix} & & & & \\ & & & & \\ & & & & \end{pmatrix}$$
 , or $\begin{pmatrix} & & & \\ & & & \\ & & & \end{pmatrix}$

20

provided that ortho position to Y is N or O

25

10. A pharmaceutical composition including a therapeutically effective amount of a compound claim 6, 7, 8 or 9, or a salt, solvate, or a physiologically functional derivative thereof and one or more of pharmaceutically acceptable carriers, diluents and excipients.

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- 11. A compound selected from the group consisting of:
- 2-(2-Chloro-5-fluoro-phenylimino)-5-(2,3-dihydro-benzo[1-6]dioxin-6-ylmethylene)-thiazolidin-4-one;

- $\hbox{2-}(2-Chloro-phenylimino)-5-(2-oxo-2H-chromen-6-ylmethylene)-thiazolidin-4-one;$
- $\hbox{2-}(2-Chloro-phenylimino)-5-(2-oxo-2H-chromen-6-ylmethylene)-thiazolidin-4-one;$

- 2-(2-Chloro-phenylimino)-5-(2-oxo-2H-chromen-6-ylmethylene)-thiazolidin-4-one;
- 5-(2,3-Dihydro-benzofuran-5-ylmethylene)-2-(2,4,6-trimethyl-phenylimino)-thiazolidin-4-one;
- 2-Cyclohexylimino-5-(2,3-dihydro-benzo[1-6]dioxin-6-ylmethylene)-thiazolidin-4-one;
 - 2-Cyclohexylimino-5-(2,3-dihydro-benzofuran-5-ylmethylene)-thiazolidin-4-one;
- 10 5-(2.3-Dihydro-benzofuran-5-ylmethylene)-2-o-tolylimino-thiazolidin-4-one;

- 5-(2,3-Dihydro-benzo[1-6]dioxin-6-ylmethylene)-2-o-tolylimino-thiazolidin-4-one;
- 5-[2-(2-Chloro-phenylimino)-4-oxo-thiazolidin-5-ylidenemethyl]-3H-benzooxazol-2-one;
- 2-(2-Trifluoromethyl-phenylimino)-5-(2,3-dihydro-benzofuran-5-ylmethylene)-thiazolidin-4-one;
- $\hbox{$2$-(2-Bromo-phenylimino)-5$-(2,3-dihydro-benzofuran-5$-ylmethylene)$-thiazolidin-4$-one; }$
 - 2-(2,6-Dichloro-phenylimino)-5-(2,3-dihydro-benzofuran-5-ylmethylene)-thiazolidin-4-one;
- 5-(2,3-Dihydro-benzofuran-5-ylmethylene)-2-(2-methylsulfanyl-phenylimino)-25 thiazolidin-4-one;
 - 5-(2,3-Dihydro-benzofuran-5-ylmethylene)-2-(2-fluoro-phenylimino)-thiazolidin-4-one;
 - 2-(2-Methylsulfanyl-phenylimino)-5-(quinolin-6-ylmethylene)-thiazolidin-4-one;
- 30 2-(2-Bromo-phenylimino)-5-(quinolin-6-ylmethylene)-thiazolidin-4-one;
 - $\hbox{2-}(2,3-Dimethyl-phenylimino)-5-(quino lin-6-ylmethylene)-thiazolidin-4-one;$
- 35 2-(Naphthalen-1-ylimino)-5-(quinolin-6-ylmethylene)-thiazolidin-4-one;
 - 5-(Quinolin-6-ylmethylene)-2-(2-trifluoromethyl-phenylimino)-thiazolidin-4-one;
- 2-(2-Chloro-5-trifluoromethyl-phenylimino)-5-(quinolin-6-ylmethylene)-thiazolidin-4-40 one;
 - 2-(2,6-Dichloro-phenylimino)-5-8quinolin-6-ylmethylene)-thiazolidin-4-one;
- 2-(2-Bromo-phenylimino)-5-(2,3-dihydro-benzo[1-6]dioxin-6-ylmethylene) -thiazolidin-45 4-one;
 - $\hbox{2-(2-Chloro-phenylimino)-5-(quinoxalin-6-ylmethylene)-thiazolidin-4-one;}\\$
- 2-(2,6-Dichloro-phenylimino)-5-(2,3-dihydro-benzo[1-6]dioxin-6-ylmethylene)-50 thiazolidin-4-one;
 - 5-(2,3-Dihydro-benzo[1-6]dioxin-6-ylmethylene)-2-(2-nitro-phenylimino) -thiazolidin-4-one;

5-(2,3-Dihydro-benzofuran-5-ylmethylene)-2-(2-nitro-phenylimino)-thiazolidin-4-one;

- 2-(2-Chloro-4-fluoro-5-methyl-phenylimino)-5-(2,3-dihydro-benzofuran-5-ylmethylene)thiazolidin-4-one;
 - 3-Chloro-4-[5-(2,3-dihydro-benzofuran-5-ylmethylene)-4-oxo-thiazolidin-2-ylideneamino]-benzoic acid methyl ester;
- 2-(2-Chloro-5-fluoro-phenylimino)-5-(2,3-dihydro-benzofuran-5-ylmethylene)-thiazolidin-4-one;
 - 2-(2-Chloro-4-trifluoromethyl-phenylimino)-5-(2,3-dihydro-benzofuran-5-ylmethylene)-thiazolidin-4-one;
- 2-(4-Bromo-2-chloro-phenylimino)-5-(2,3-dihydro-benzofuran-5-ylmethylene)-thiazolidin-4-one;
- 5-(2,3-Dihydro-benzofuran-5-ylmethylene)-2-(2-methanesulfinyl-phenylimino)-20 thiazolidin-4-one;
 - 3-Chloro-4-[5-(2,3-dihydro-benzofuran-5-ylmethylene)-4-oxo-thiazolidin-2-ylideneamino]-benzoic acid;
- 25 5-[2-(2-Chloro-phenylimino)-4-oxo-thiazolidin-5-ylidenemethyl]-1H-pyridin-2-one;
 - 2-(2-Methylsulfanyl-phenylimino)-5-(quinolin-6-ylmethylene)-thiazolidin-4-one;
- 2-(2-Chloro-4-fluoro-5-methyl-phenylimino)-5-(quinolin-6-ylmethylene)-thiazolidin-4-30 one;
 - 2-(2-Chloro-5-fluoro-phenylimino)-5-(quinolin-6-ylmethylene)-thiazolidin-4-one;
- 2-(2-Chloro-5-fluoro-phenylimino)-5-(2,3-dihydro-benzo[1-6]dioxin-6-ylmethylene)-35 thiazolidin-4-one;
 - 2-(2-Chloro-4-trifluoromethyl-phenylimino)-5-quinolin-6-ylmethylene-thiazolidin-4-one:
- 40 5-(Benzothiazol-6-ylmethylene)-2-(2-chloro-phenylimino)-thiazolidin-4-one;
 - 5-(Benzo[1,2,5] thiadiazol-5-ylmethylene)-2-(2-bromo-phenylimino)-thiazolidin-4-one;
- 5-(Benzo[1,2,5]thiadiazol-5-ylmethylene)-2-(2-chloro-5-fluoro-phenylimino)-thiazolidin-45 4-one;
 - 5-(Benzothiazol-6-ylmethylene)-2-(2,6-dichloro-phenylimino)-thiazolidin-4-one;
 - 2-(2-Chloro-phenylimino)-5-(4-hydroxy-3-nitro-benzylidene)-thiazolidin-4-one;
- 50 2-(2-Chloro-phenylimino)-5-(4-hydroxy-3-methoxy-benzylidene)-thiazolidin-4-one;

2-(2-Chloro-phenylimino)-5-(4-hydroxy-benzylidene)-thiazolidin-4-one;

- 2-(2-Chloro-phenylimino)-5-(4-methoxy-benzylidene)-thiazolidin-4-one;
- $5 \hspace{0.1in} \hbox{\it 5-(3-Chloro-4-hydroxy-benzylidene)-2-(2-chloro-phenylimino)-thiazolidin-4-one;}$
 - $\hbox{2-(2-Chloro-phenylimino)-5-(3-fluoro-4-methoxy-benzylidene)-thiazolidin-4-one;}\\$
 - 2-(2,6-Dichloro-phenylimino)-5-(3-fluoro-4-hydroxy-benzylidene)-thiazolidin-4-one;
- 10 2-(2-Chloro-phenylimino)-5-(3-fluoro-4-hydroxy-benzylidene)-thiazolidin-4-one;
 - 2-(2-Chloro-5-fluoro-phenylimino)-5-(3-fluoro-4-hydroxy-benzylidene)-thiazolidin-4-one;
- 15 5-(3-Fluoro-4-hydroxy-benzylidene)-2-o-tolylimino-thiazolidin-4-one;
 - $\hbox{2-}(2-Chloro-phenylimino)-5-quino lin-6-yl methylene-thiazolidin-4-one;$
- 20 5-Quinolin-6-ylmethylene-2-(2,4,6-trimethyl-phenylimino)-thiazolidin-4-one;
 - $\hbox{5-Quinolin-6-ylmethylene-2-o-tolylimino-thiazolidin-4-one;}\\$
 - 2-(2-Methoxy-phenylimino)-5-quinolin-6-ylmethylene-thiazolidin-4-one;
 - 5-(2,3-Dihydro-benzofuran-5-ylmethylene)-2-(2-dimethylamino-ethylamino)-thiazol-4-
- 25 one;
 - Benzoic acid N'-(4-oxo-5-quinolin-6-ylmethylene-4,5-dihydro-thiazol-2-yl)-hydrazide;
 - 2-(2-Dimethylamino-ethylimino)-5-quinolin-6-ylmethylene-thiazolidin-4-one;
- 30 5-(2,3-Dihydro-benzofuran-5-ylmethylene)-2-(piperidin-1-ylamino)-thiazol-4-one;
 - $\hbox{$2$-Benzylamino-5-(2,3-dihydro-benzofuran-5-ylmethylene)-thiazol-4-one;}$
- 2-(4-tert-Butyl-thiazol-2-ylamino)-5-(2,3-dihydro-benzofuran-5-ylmethylene)-thiazol-4-35 one;
 - 4-{[5-(2,3-Dihydro-benzofuran-5-ylmethylene)-4-oxo-4,5-dihydro-thiazol-2-ylamino]-methyl}-benzenesulfonamide;
- 5-(2,3-Dihydro-benzofuran-5-ylmethylene)-2-(3-dimethylamino-propylamino)-thiazol-4-one;
 - 5-(2,3-Dihydro-benzofuran-5-ylmethylene)-2-(3-imidazol-1-yl-propylamino)-thiazol-4-one;

Phenyl-carbamic acid N'-[5-(2,3-dihydro-benzofuran-5-ylmethylene)-4-oxo-4,5-dihydro-thiazol-2-yl]-hydrazide;

- Benzoic acid N'-[5-(2,3-dihydro-benzofuran-5-ylmethylene)-4-oxo-4,5-dihydro-thiazol-2-yl]-hydrazide;
 - 5-Benzo[1,2,5]thiadiazol-5-ylmethylene-2-(2,3,4-trifluoro-phenylamino)-thiazol-4-one;
- 5-Benzo[1,2,5]oxadiazol-5-ylmethylene-2-(2-nitro-phenylamino)-thiazol-4-one;
- 10 2-(2,6-Dichloro-phenylamino)-5-(4-[1,2,4]triazol-1-yl-benzylidene)-thiazol-4-one;
 - 2-(2,6-Dichloro-phenylamino)-5-(1H-pyrrolo[2,3-b]pyridin-2-ylmethylene)-thiazol-4-one;
- 5-Benzo[1,2,5]thiadiazol-5-ylmethylene-2-(2,6-dichloro-phenylamino)-thiazol-4-one;
 - 5-[2-(2-Methoxy-6-methyl-phenylamino)-4-oxo-4H-thiazol-5-ylidenemethyl]-1H-pyridin-2-one;
- 20 5-Benzo[1,2,5]thiadiazol-5-ylmethylene-2-(2-nitro-phenylamino)-thiazol-4-one;
- 2-(2-Bromo-6-fluoro-phenylamino)-5-quinolin-6-ylmethylene-thiazol-4-one;
- 25 2-(2-Methoxy-6-methyl-phenylamino)-5-quinolin-6-ylmethylene-thiazol-4-one;
 - 5-Quinolin-6-ylmethylene-2-(2,3,4-trifluoro-phenylamino)-thiazol-4-one;
- 30 2-(2,6-Dichloro-phenylamino)-5-(2-oxo-2H-chromen-6-ylmethylene)-thiazol-4-one;
 - 2-(2-Bromo-phenylamino)-5-(5-pyridin-2-yl-thiophen-2-ylmethylene)-thiazol-4-one;
 - 2-(2-Bromo-phenylamino)-5-(1-oxy-pyridin-4-ylmethylene)-thiazol-4-one;

- 2-(2-Bromo-phenylamino)-5-(3-p-tolyl-benzo[c]isoxazol-5-ylmethylene)-thiazol-4-one;
- 2-(2-Bromo-phenylamino)-5-(3,4-dihydro-2H-benzo[b][1-6]dioxepin-7-ylmethylene)-thiazol-4-one;
- 40 5-Benzo[1,2,5]oxadiazol-5-ylmethylene-2-(2-bromo-phenylamino)-thiazol-4-one;
 - $\hbox{$2$-(2,6-Dichloro-phenylamino)-5-(2-methoxy-pyridin-3-ylmethylene)-thiazol-4-one;}$
- 45 2-(2-Chloro-phenylamino)-5-(6-methoxy-pyridin-3-ylmethylene)-thiazol-4-one;
 - 2-(2-Chloro-5-trifluoromethyl-phenylamino)-5-quinolin-6-ylmethylene-thiazol-4-one;
 - 2-(2-Bromo-phenylamino)-5-(4-hydroxy-3-methoxy-benzylidene)-thiazol-4-one;
- 50 5-(2,3-Dihydro-benzofuran-5-ylmethylene)-2-(2-methoxy-phenylamino)-thiazol-4-one;

- 2-(2-Nitro-phenylamino)-5-quinolin-6-ylmethylene-thiazol-4-one;
- 2-(2-Bromo-phenylamino)-5-(3,4-diamino-benzylidene)-thiazol-4-one;

5 5-[2-(2-Chloro-phenylimino)-4-oxo-thiazolidin-5-ylidenemethyl]-1-methyl-1H-pyridin-2-one;

- 2-(2-Chloro-5-nitro-phenylamino)-5-quinolin-6-ylmethylene-thiazol-4-one;
- 10 2-(5-Amino-2-chloro-phenylamino)-5-quinolin-6-ylmethylene-thiazol-4-one;
 - N-[4-Chloro-3-(4-oxo-5-quinolin-6-ylmethylene-4,5-dihydro-thiazol-2-ylamino)-phenyl]-acetamidine hydrochloride;
- 15 4-{[4-oxo-5-(6-quinolinylmethylidene)-4,5-dihydro-1,3-thiazol-2-yl]amino}benzamide;
 - 3-{[4-oxo-5-(6-quinolinylmethylidene)-4,5-dihydro-1,3-thiazol-2-yl]amino}benzenesulfonamide;
- 20
 4-{[4-oxo-5-(6-quinolinylmethylidene)-4,5-dihydro-1,3-thiazol-2-yl]amino}-N-2-pyridinylbenzenesulfonamide;
- 2-({4-[(4-methyl-1-piperazinyl)methyl]phenyl}amino)-5-(6-quinolinylmethylidene)-1,3thiazol-4(5H)-one;
 - 2-({4-[(methylsulfonyl)methyl]phenyl}amino)-5-(6-quinolinylmethylidene)-1,3-thiazol-4(5H)-one;
- 30 2-([3-[(methylsulfonyl)methyl]phenyl]amino)-5-(6-quinolinylmethylidene)-1,3-thiazol-4(5H)-one;
 - 2-{[4-(4-methyl-1-piperazinyl)phenyl]amino}-5-(6-quinolinylmethylidene)-1,3-thiazol-4(5H)-one;
 - $2-\{[2-(3-chlorophenyl)ethyl]amino\}-5-(6-quinolinylmethylidene)-1, 3-thiazol-4(5H)-one;$
 - 4-(2-{[4-oxo-5-(6-quinolinylmethylidene)-4,5-dihydro-1,3-thiazol-2-yl]amino}ethyl)benzenesulfonamide;

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- 40 3-{[4-oxo-5-(6-quinolinylmethylidene)-4,5-dihydro-1,3-thiazol-2-yl]amino}benzamide;
- 2-[(2,6-Difluoro-phenylamino)-methylene]-5-quinolin-6-ylmethylene-thiazolidin-4-one;
 - $\hbox{$2$-[(2,6-Difluoro-phenylamino)-methylene]-5-quinolin-6-ylmethylene-thiazolidin-4-one;}$
- [2,4-Dichloro-5-(4-oxo-5-quinolin-6-ylmethylene-thiazolidin-2-ylideneamino)-phenoxy]acetic acid;
 - 2-[2,4-Dichloro-5-(2-methoxy-ethoxy)-phenylimino]-5-quinolin-6-ylmethylenethiazolidin-4-one;

4-Chloro-3-(4-oxo-5-quinolin-6-ylmethylene-thiazolidin-2-ylideneamino)-benzoic acid;

5 [2,4-Dichloro-5-(4-oxo-5-quinolin-6-ylmethylene-thiazolidin-2-ylideneamino)-phenoxylacetic acid.